

# COASTAL HERITAGE

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S.C.'s Working Waterfronts  
*Fishing Villages Evolve*



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*Working waterfronts are living entities, shaped by many variables. In South Carolina, the communities around those waterfronts are taking stock of recent changes and deciding how best to move forward.*

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### **ON THE COVER:**

*Isaiah Brown sits while heading shrimp on Adam Singleton's boat at the Port Royal dock.*

**PHOTO/GRACE BEAHM**

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Serving South Carolina*

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**TRADITIONAL TASK.** *Monroe Linnen (foreground) heads shrimp with his friend Adam Singleton at the Port Royal dock. Singleton appreciates that Port Royal has maintained a town dock and processing facility.*

PHOTO/GRACE BEAHM

## S.C.'s Working Waterfronts

### *Fishing Villages Evolve*

A shrimp boat rigging silhouetted against a brilliant red and yellow sunset serves as the iconic image of South Carolina's working waterfronts, found on everything from the walls of the state's welcome centers to the official logos for coastal municipalities.

Fishing vessels merited icon status in communities like Murrells Inlet, Georgetown, McClellanville, Mount Pleasant, and Port Royal for the second half of the 20<sup>th</sup> century. But those communities have transitioned in recent years from traditional fishing villages to more contemporary versions of working waterfronts. In changes sparked by explosive coastal population growth, the waterways once dominated by commercial fishing boats now are filled with pleasure boats, kayaks, and jet skis. Waterfronts once rimmed by processing plants and ice houses now teem with restaurants and high-end housing.

In general, this is nothing new. Working waterfronts always have been

living entities, evolving with the economic, political, and ecological tides. Commercial shrimping on big boats didn't take off as a profession in South Carolina until the late 1930s. Entering the 20<sup>th</sup> century, the iconic image of the working waterfront might have been flat barges full of oysters. For much of the 19<sup>th</sup> century, it would have been large ships laden with timber.

Change along working waterfronts is inevitable, but many communities now aim to guide those changes to fit their desired personality. If a community wants commercial fishing to remain a major component of the waterfront, how can that be accomplished? If the commercial fishing component is going to diminish, what replaces it?

To facilitate that kind of planning, researchers from S.C. Sea Grant Consortium and Clemson University organized public information-gathering sessions in five communities in 2015.

The effort brought together people from diverse fields – including commercial fishing, outdoor recreation, urban planning, and tourism – to gauge the current state and desired future path for Murrells Inlet, Georgetown, McClellanville, Mount Pleasant, and Port Royal.

In a subsequent project, graduate students from College of Charleston interviewed individual stakeholders, with additional focus on the perceived impact of sea-level rise and changing precipitation patterns. The information and opinions gathered will be compiled and shared with residents, business owners, and recreational users in each community to help plan for the future.

The research indicates the five working waterfront communities face similar challenges with their own unique circumstances. What follows is a snapshot of each, with the caveat that things continue to change, almost daily. ♡





**EASING ACCESS.** Waterfront restaurants and recreation businesses have flourished in Murrells Inlet since the construction of Marshwalk, a belt of pavement and boardwalks connecting the restaurants with waterfront docks.

PHOTO/GRACE BEAHM

## Murrells Inlet: Restaurants, recreational variety

*“Altogether, maybe three dozen cottages were what Murrells Inlet consisted of back then [in the 1920s], and these were scattered along about four miles of salt marsh shore and connected up for the most part by an oyster-shell lane running along the bluff – a lane so narrow a buggy, wagon, or automobile couldn’t pass, and so narrow my future husband drove off into the marsh when he was learning to drive. ... Beside the residences we also had a couple of boardinghouses and a couple of restaurants which were already famous for serving seafood—which Murrells Inlet is even more famous for today.”*

—“Heaven Is a Beautiful Place,” by Genevieve C. Peterkin, 2000

Genevieve C. Peterkin grew up in Murrells Inlet and reveled in telling

stories of its past while sitting on her back porch. She died in 2011, living long enough to see another narrow, oyster-studded lane rescue her beloved town’s working waterfront from an economic downturn in the late 1990s.

Many of the restaurants on Main Creek were struggling. Myrtle Beach vacationers had plenty of restaurant options. Why should they make the drive down to Murrells Inlet?

Community leaders formed a task force, dubbed Murrells Inlet 2007, aimed at sprucing up the waterfront’s infrastructure and image. Their crowning achievement was the Marshwalk, a belt of pavement and boardwalks on the marsh side of the restaurants. It was paid for with proceeds from Sunday alcohol sales permits and contributions from restaurants and other businesses. The first section of the Marshwalk opened in 1998 and transformed the working waterfront’s ambiance. Before or after eating, visitors stroll along the marsh, watch the wildlife, and check out the fishing

boats on the adjacent docks.

But they’re seeing fewer of those boats these days. The dock space once used exclusively by commercial and charter fishing boats now is shared by companies that rent jet skis, kayaks, and standup paddleboards. Boats that used to bring in fish now take out tourists for scuba diving, wildlife viewing, or pirate history tours.

Tom Swatzel first worked as a deckhand on local boats while in high school and later owned Capt. Dick’s Marina and several charter boats that could handle up to 150 people. Limits on the catch allowed for certain species and competition for tourism dollars hurt the charter industry in the 1990s, Swatzel says. He sold off most of his boats and, eventually, the marina. “People would rather parasail or jet ski or go on dolphin tours,” he says. “That’s what has made up for the loss of income from fishing. There’s a lot more diversification in terms of waterfront activity.”

Wayne Mershon runs a commercial seafood business supplied by boats that dock in Murrells Inlet. He’s seen the number of commercial fishing boats in the inlet drop from 25 to six in about 20 years. Fuel and ice, once available at processing plants on the docks, now have to be brought in by trucks. But the boats that remain pull in enough fish for Mershon’s business to survive. “The Marshwalk inconvenienced us at first until we learned how to use it,” Mershon says.

One business that provides dock space for commercial fishing boats is Drunken Jack’s, where owner Al Hitchcock worries about the future of that connection. “We need to maintain the fishing like we have it now and not let it slip back anymore,” he says. “Without that local seafood, the waterfront restaurants wouldn’t be anything more than the chain restaurants out on the bypass.”

The owners of Dead Dog Saloon recognized an opportunity and began renting jet skis and kayaks out of their dock space as Marshwalk Water Sports a few years ago. “The things that

attract tourists in the area are always changing,” says Anthony Laverick, who manages Marshwalk Water Sports. “Jet skis were the latest thing. Now, at least three companies in the area have built zip lines.”

Commercial fishing boat operators wish they had more than the small processing facility at the Wicked Tuna restaurant on the waterfront. They also say that long delays in dredging make it hard to get in and out of the channel at low tide, and thus favor the operation of smaller boats and jet skis. Laverick says dredging would help his business, too, with more space for everybody in a wider channel. As it is, his company shuts down jet ski rentals on the busiest holiday weekends, fearing for the safety of inexperienced riders among the crowds of pleasure boaters.

Swatzel thinks the Murrells Inlet working waterfront balance is about



**MILITARY PAST.** During World War II, Murrells Inlet was the most unlikely of military facilities, with what locals called Navy crash boats hustling out to rescue downed planes from Wilmington, N.C. to Charleston, S.C.

PHOTO/GEORGETOWN COUNTY DIGITAL LIBRARY

right—some commercial fishing, mixed with a lot of recreational activity, with the big restaurants serving as the financial base. “The problem that

the area faces now is dealing with the success,” Swatzel says. “If you come down here in the summer, you can’t find a parking spot.” 🐦



**EVOLVING USES.** Boats that take scuba divers out to reef areas have supplanted commercial fishing boats in some docks at Murrells Inlet as recreational use of the waterfront rises.

PHOTO/GRACE BEAHM



Working waterfront locations along the South Carolina coast.

MAP/PREPARED BY ANDREA SASSARD USING DATA FROM THE NATIONAL BOUNDARY DATASET (2014) PRODUCED BY THE U.S. GEOLOGICAL SURVEY





**DIVERSE NEIGHBORHOOD.** An International Paper plant, though not directly on the Georgetown waterfront, is close enough to remind strollers on the Harborwalk that this wasn't always a tourism-dominated city.

PHOTO/GRACE BEAHM

## Georgetown: Tourism grows more important

*"Today the great Clyde liner 'New York' steams easily up the river, and up to within a stone's throw of the main street of the city. The little sailing vessels that aided in the commerce of the older days are still plying a profitable trade on the river to points in the heart of the cotton and the timber country. ... In spite of harrowing experiences in times of civil and external strife, in which houses have been destroyed and men have perished, and her wealth has been reduced to a pitiful living amount, Georgetown has risen out of her troubles serene, hopeful and finally successful."*

—Charleston News & Courier,  
December 18, 1905, on  
Georgetown's centennial

Georgetown has been the second most diverse working waterfront in South Carolina, behind the much larger port of Charleston. Boat

building, commercial fishing, heavy industry, retail shops, and shipping co-existed while riding ebbs and flows. Now, local residents wonder if that diversification will survive, or even if it's desirable.

Georgetown's commercial fishing and shipping businesses are limping as they attempt to clear economic hurdles not entirely of their making. The last rites have been read over the body of heavy industry on the waterfront, with the closing of the ArcelorMittal steel mill in 2015. Tourism-related businesses, however, thrive, and they appear to represent the future.

Mayor Jack Scoville isn't ready to write off the struggling sectors, but he acknowledges "the working waterfront here is in a transition period."

That's been the case since European explorers first settled in the area in the 1600s. Those sailors made the 12-mile journey through Winyah Bay to what is now called the Sampit River to anchor small sailing vessels away from the vagaries of the open ocean. Transitions along the Georgetown working waterfront

have been sparked by wars, economic downturns, the deepening of the shipping channel, and the arrival of Atlantic Coast Lumber Company in the early 1900s, International Paper in 1937, and Georgetown Steel in 1969.

International Paper is the one industry that remains. Scoville says ArcelorMittal has told the town it plans to clear its waterfront site and do the environmental work to make it suitable for other uses. The company and town are working on a long-range development plan. Scoville would like to see mixed use that includes a hotel and retail. But he isn't one to put all his eggs in the tourism basket. He'd like to see some light industrial use of that property. "Georgetown has always been a working port," he says, "and I would hope we will continue to be."

The town sparked the most recent period of rapid change by inviting people to enjoy the waterfront. Where so many had toiled in dirty, difficult professions for decades, the town in the 1980s began development of the Harborwalk, a 3.5-block wooden promenade that separates the harbor docks from the back entrances to Front Street businesses. Groups stroll side-by-side on the Harborwalk after eating a meal or grabbing a drink in one of a dozen nearby restaurants. When the wind blows, the clanking of rigging against the masts of sailboats in the private docks provides a musical backbeat for the scene.

The waterfront district is thriving despite a 2013 fire that forced the removal of seven buildings. It's much like Myrtle Beach was 30 years ago in terms of tourist traffic, says Sally Swineford, co-owner of the popular River Room restaurant. Locals have the place to themselves much of the winter. Then "when the weather starts getting pretty again, people come back to Georgetown," she says. By late March, hungry tourists and locals wait in line to get a lunch table.

At the Harborwalk Marina, tourist boaters return each year like migratory birds. "We turn boats away every night once things pick up in

spring,” says manager Chris Carroll. “So many of them come through, and they all want to be downtown. They want to be able to walk to the restaurants and the shops.”

Harborwalk Marina is wedged between the tourist-related area and what’s left of the commercial fishing infrastructure. With boat repair services at Hazzard Marine and seafood processing services at Independent Seafood, Georgetown is well-equipped to handle commercial fishing. Yet the number of boats calling Georgetown home has dropped precipitously in recent years.

“There used to be three docks just full of boats here; now there’s just six boats,” says Independent Seafood owner Glennie Tarbox, who has worked on the Georgetown waterfront for 54 years. “It’s not an easy task to make it these days in the commercial seafood business. I think it’s going to become a niche business, where they fish less often and just supply a local market.”

Tarbox works out of a cramped office in a concrete block building that belies his and his company’s importance to the community. During Independent Seafood’s heyday, as many as 50 women would crowd around two tables along the waterfront, heading 10,000 pounds of shrimp on a good day. Now, that would be a good week, and most of the shrimpers head the catch themselves on their boats. The annual brown and white shrimp harvest in the state dropped from annual averages of 7.04 million pounds from 1990-94 to 2.26 million pounds from 2010-14, according to the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service.

Meanwhile, charter fishing services and recreational boating are booming. The number of registered boats in the state jumped from 383,734 in 2000 to 462,680 in 2014, according to the National Marine Manufacturers Association. Reed Tiller, owner-general manager of Hazzard Marine, has the equipment to haul the largest boats



**LUMBER RULED.** In its early 1900s heyday, the Atlantic Coast Lumber Company kept schooners and steamships busy at its 1,200-foot-long wharf in Georgetown’s harbor.  
PHOTO/GEORGETOWN COUNTY DIGITAL LIBRARY

out of the water for repairs. Twelve years ago, he added marina facilities to handle boats from 25-to-60 feet.

“As long as there’s no serious economic trouble, I think the recreational boating industry will continue to thrive,” Tiller says.

But across the Sampit River, the big ships no longer want to visit the underutilized State Ports Authority dock. The port has been hurt by the shipping industry’s shift to large cargo ships, as well as the long delay in dredging the Georgetown channel. The channel, which was 27 feet deep after the last dredging in 2006, is about 19 feet now, says Perry Collins, president of Gulf & Atlantic Maritime Services, which provides stevedores for the port. He has had a front-row seat as the facility hit peaks in the past three decades, importing salt, cement, mahogany, and iron rods, and exporting wood pulp. But when International Paper switched to truck transport around 2000, the port business slowed remarkably. The port annually moved 1.5 million tons in the mid-1990s but only about 500,000 tons in 2015.

The community showed its support for the port by approving a one-cent sales tax to help pay for dredging. The tax was designed to raise \$6 million, the community’s portion of an estimated \$33 million project. But the U.S. Army Corps of

Engineers has put Georgetown on the back burner, focusing its dredging dollars on busier ports and waterways.

“I believe in Georgetown,” says Collins, who lives in the city even though most of his work is in Charleston now. “We just have to find the right cargo mix. Our future is to find small parcel cargoes that come in on low draft vessels. We’d be a good bulk cargo port if we had dredging.”

Many Georgetown residents would hate to see commercial shipping and its few high-paying jobs die, and they almost universally are rooting for commercial fishing to survive on their waterfront.

“You can’t have a historical waterfront without fresh seafood—let’s be honest,” says Paul Laurent, who guides kayak trips in the Georgetown harbor for Black River Outdoors Center. “You can’t go to a historical harbor and eat fried chicken—it’s just wrong.”

Laurent loves that Georgetown is working to buy Goat Island in the middle of the harbor and build a small dock and walkway there for passive recreation activities. He also would like to see a hotel on the steel mill property to make visitors want to stay overnight in the city. “Without the steel mill and without dredging, Georgetown has lost its old reason to exist,” Laurent says. “The only thing left is tourism.” 🍷





**ADAPTATION.** Ricky Russ spends most of his days on the water, but he can be found in a greenhouse on the McClellanville waterfront in early spring helping soft-shell crabs through molting stages.

PHOTO/JOEY HOLLEMAN/S.C. SEA GRANT CONSORTIUM

## McClellanville: Rural, aiming to stay that way

*"In the long run, [the town's isolation] was for the best, for while the benefits of progress had often eluded them, so had the pitfalls, and what remains, even today, is a relative charm and quiet."*

—"The Visible Village: McClellanville 1860-1945," by William P. Baldwin, 1984

McClellanville stands apart from other working waterfronts in South Carolina in a couple of important ways. Its geographic isolation has helped maintain a rural attitude, and commercial fishing remains the economic driver for the community. These days, the town that got its start as a summer resort for plantation owners has the least touristy feel of South Carolina coastal communities.

The small commercial section of the Jeremy Creek waterfront is dominated by two commercial docks—at

Carolina Seafood and Livingston's Bulls Bay Seafood. A public boat landing with limited parking spaces gets crowded on weekends and during the public shrimp-baiting season in the fall, but most of those boats head into the Intracoastal Waterway and leave the working waterfront behind.

McClellanville is a place where you can expect to bump into characters like Ricky Russ, with the unruly white beard and leathery forearms of a man who has spent most of his life on boats. "I do shrimping, oystering, crabbing, clamming—anything on the water," Russ says. "I'm not much for being up on the hill."

The "hill" in this case is anything above sea level. But Russ has learned to adapt. He spends a good chunk of March and early April on dry land in a converted greenhouse at Livingston's Bulls Bay Seafood, where soft-shell crab production requires 24-7 monitoring. The crabs have to be moved from one small pool to another to separate active crabs in early stages of molting

from lethargic ones in later stages.

"We used to not have anything to do around here in the spring but paint shrimp boats," Russ says. "Now I can go out and pull traps in the morning and work in here the rest of the day and into the night."

Jeff Massey, manager at Bulls Bay Seafood and son-in-law of owners Bill and Kathy Livingston, said the soft-shell crab operation is an example of how diversification keeps the business going strong. Harvesting soft-shell crabs, oysters, and clams complements shrimping. "One season flows into the next, and sometimes it's two or three at once," Massey says. "We don't quit. We keep hammering away at it and trying to figure out the right way to do it."

Massey wishes he could diversify even more and set up a food truck in his parking lot, but town zoning regulations don't allow that. He won't complain too much, however, because those same regulations along with the absence of municipal water and sewer lines, rule out condos, hotels, or restaurants on the working waterfront. To change that situation, an erstwhile developer would have to go through the mayor, Rutledge Leland, III, who also happens to own Carolina Seafood. Residents must appreciate the commercial seafood industry, because Leland's been mayor since 1976.

"The residential community has to put up with some things," Leland says. "They have to listen to boats crank up at 4 o'clock in the morning and the big trucks that have to come down here to pick up their product. And I think with very few exceptions, they've been very supportive. They say we want shrimp boats there."

Aaron Baldwin grew up in town, worked on boats in his younger years, and now is an art professor at Charleston Southern University and a member of town council. "I think people who are from here are supporters of people earning their living on the water," Baldwin says. "People who are from here, we all grew up working on the water, and even if we're lawyers or engineers or professors, we want to



see that continue.”

Bulls Bay oysters dominated the dock space in the early 1900s, with as many as seven oyster processing houses. Shrimping arrived as a commercial operation in McClellanville in 1935, when a group of Portuguese sailors brought 15 boats up from Brunswick, Georgia for a season. Local residents saw the large hauls and recognized an opportunity. Prior to that, shrimping was a small-scale operation, often done in tiny sailing vessels. After World War II, many returning soldiers converted salvaged military boats, and soon there were 50 shrimp boats working out of four docks on Jeremy Creek. Oyster and crab processing plants also kept the docks busy. But the oyster and crab processing facilities have closed, and large private homes replaced the last crab facility in the past decade. In general, however, the waterfront remains a commercial seafood haven, with no public walkway along the docks and no waterfront restaurants.

The big question in the town of



**FAMILIAR SIGHTS.** *The current working waterfront in McClellanville has many similarities to this view in the 1930s, but now it's down to two major commercial docks.*  
PHOTO/THE VILLAGE MUSEUM AT MCCLELLANVILLE

McClellanville is what happens to Carolina Seafood when the 72-year-old Leland retires. His children don't want to run the business, and he says he has been talking with boat owners about forming a co-op to take over opera-

tions. “I want to keep these guys with a place to work,” Leland says. “I don't want it to become a condo city. I want it to be a commercial fishing dock. I'm part of the community, and that's what I like to see.” 🐟



**SLOWER TIMES.** *During the off-season, stacked crab traps line the dock at Livingston's Bulls Bay Seafood in McClellanville.*

PHOTO/JOEY HOLLEMAN/S.C. SEA GRANT CONSORTIUM

## TRENDS ON THE WATER

### Registered boats in South Carolina

2000: 383,734

2014: 462,680

Source: National Marine Manufacturers Association

### Recreational angler trips in South Carolina

2000: 1.3 million

2014: 2.2 million

Source: National Oceanic and Atmospheric Administration's National Marine Fisheries Service

### Total commercial seafood catch in South Carolina

2000: 15.90 million pounds

2014: 8.95 million pounds

Source: National Oceanic and Atmospheric Administration's National Marine Fisheries Service





**POPULAR PLACE.** During summer weekends, shrimp boats now share the narrow confines of Shem Creek with pleasure boaters, kayakers, and stand-up paddle boarders.  
PHOTO/GRACE BEAHM

## Mount Pleasant: Crowding pressures town icon

*“Entering Shem’s Creek, where it flows into the Bay, the first settlement on the left is the plantation formerly owned by the late John D. Legare, Esq., the distinguished Horticulturist, of Charleston, whose labors are still recognized in the tasteful arrangement of the ground and shrubbery. ... Beyond this, is the fine residence and planting lands of Dr. Louis Klipstein, on arriving at which, we are met by the energetic proprietor at his noble causeway and bridge, who takes great pleasure in shewing [sic] us his improvements.”*

—Charleston Courier, 1858

Residential real estate was a big deal along Shem Creek in Mount Pleasant long before commercial fishing took precedence. The newspaper correspondent in 1858 made little mention of the working waterfront on

the other side of the creek, where ships, bricks, and baskets had been manufactured and rice and lumber milled for decades.

Most of those businesses left the creek long ago, though boat building held out until the late 1900s. Commercial fishing began to dominate the creek in the middle of the 1900s, taking advantage of the deep channel and easy access to the open Atlantic. The first restaurants popped up in the 1960s in former fish processing houses. With the rapid growth of waterfront real-estate values in recent years, a former boat repair facility made way for high-end homes, the new waterfront estates of the very rich. One of those homes recently was on the market for \$3.75 million, with a listing boasting of second-floor views of the Charleston Harbor but making no mention of the working waterfront closer to its back door.

Compared to other working waterfronts in the state, Shem Creek has evolved farther from

its commercial fishing past. Now it’s lined by restaurants, and the water is filled on summer weekends by folks on kayaks, stand-up paddleboards, and recreational boats.

“It’s kind of like our children,” says Mark Brown, who owns and operates a charter fishing boat out of the creek. “Our children grow up so fast that sometimes it just overwhelms us how fast they’re growing. It’s evolved so quickly. People need to look at this carefully because at some point there is a breaking point.”

Mount Pleasant town officials recognize the importance of Shem Creek. Mayor Linda Page believes improving the creek’s impaired water quality through upgrades of stormwater runoff systems in surrounding residential areas should be a priority. She thinks the town largely has done its part in providing access and helping the commercial fishing businesses with the construction in 2011 of Shem Creek Park and a town dock designated specifically for commercial fishing boats. The park features a boardwalk through a hummock island on the west side of the creek, and it has been a big success. The dock was much less so, as the town initially required boat owners tying up at the dock to carry insurance most didn’t have. In the spring of 2016, a partnership worked out between the town and the manager of an adjacent private dock and fuel center allowed boat owners to work within the town’s insurance requirement.

Two wife-and-husband teams—Kerry and Mark Marhefka of Abundant Seafood and Cindy and Taylor Tarvin of Tarvin Seafood—are leading the charge to keep commercial fishing alive in the creek. They have taken slightly different paths, but both couples believe smart operation of a strong business plan is the key.

The Marhefkas operate a Community Supported Fishery, in which several hundred members pay \$120 for 15 pounds of seafood or \$240 for 30 pounds, with pickup at the dock twice per month. Mark, a commercial boat captain for nearly four decades,



does the fishing, while Kerry, a fisheries biologist by training, does much of the marketing. Mark calls from a satellite phone when he's heading in so people can plan two days ahead of pickups. Kerry and Mark also have built partnerships with high-end restaurants, the ones where chefs appreciate fresh seafood and vary menus daily depending on the catch.

"We're scrappy," Kerry says. "We supply 60-70 restaurants in South Carolina from a cooler that's just 75-80 feet from the dock." But they lease their small section of the Geechee Seafood dock on a month-to-month basis, and the owner has talked of selling the property to cash in on the high residential real estate values on the creek. "The business is thriving, but we cannot do our business without a little piece of the waterfront," Mark says.

A couple hundred feet away, the Tarvins lease dock space as well as the former Wando Seafood processing facility, which had been shut down for a few years. This year, they also went in with the Marhefkas and another partner on the east side of the creek to buy an ice machine. All of this investment is from a couple with no background in the industry. The Tarvins bought a boat five years ago to help their son Vasa, who had worked in the industry and saw fishing as his



**BYGONE DAYS.** The shrimp boats tied up four or five deep at the Shem Creek docks back in the 1960s and 1970s. These four were named for members of the Toler family, which has owned Mount Pleasant Seafood on the creek for decades. Rial Fitch and Peggy Toler Fitch now operate the venerable seafood market.

PHOTO/COURTESY OF PEGGY TOLER FITCH/MOUNT PLEASANT SEAFOOD

best career option.

"If we knew that we could make long-term plans, this industry would take off again," Taylor says. "We could sell our catch in the tri-county area. I could open up a fish shop in Summerville. I could open up a fish shop in Goose Creek. But if I can be kicked off this dock next month, I can't make that financial commitment."

Several commercial fishers have spoken with the East Cooper Land Trust about how conservation easements might work to protect the current use of some working waterfront

properties while providing financial benefits for the current owners of the properties. But the key is getting the land owners interested in an easement arrangement, or finding an individual or group to buy the land and place it under restrictive easements, said Catherine Main, the land trust's director.

Kathie Livingston, owner of Nature Adventures Outfitters, is fortunate. She has an agreement with Mount Pleasant Seafood to launch paddling trips from their property on the west bank of the creek. Livingston puts dozens of paddlers in the water on busy weekends but acknowledges she steers people to weekdays when possible. The narrow waterway is simply too full, with fishing and shrimping boats returning in the morning and recreational boats anchoring near the restaurants later in the day.

The challenge is that Shem Creek, as a navigable public waterway, is open to everyone. Or at least everyone who can squeeze in. "It's time to address overcrowding on the water," says Livingston, who suggests enforcement of Boating Under the Influence laws might help. "Shem Creek is a tight waterway. It's such a wonderful venue for shrimp boats and passive recreation. I hope we can find a gentle balance." 🐟



**TASTY TREATS.** Soft-shell crab processing is one of the growth industries on South Carolina's working waterfronts. In 2016, Marvin's Seafood joined the small number of processors of soft-shell crabs in the area, working out of a small shed along the Shem Creek waterfront.

PHOTO/GRACE BEAHM



**FAMILY TIME.** *Shrimper Jimmy Rowe spends 11 months a year on his boat up and down the Atlantic coast. He docked in Port Royal for the annual end-of-school visit from his wife, five of their sons, and a nephew.*

PHOTO/GRACE BEAHM

## Port Royal: Well situated for a renaissance

*"As one gets off the cars at the neat little depot [in Port Royal] and looks around the point that strikes his attention first is the immense wharf front with the long, low warehouse running the whole length of it. There is room here easily for three thousand feet of wharf front. There is a double track running by this which is within twenty feet of the water. In this way every facility is furnished for the loading and unloading of vessels. ... The water at the head of this wharf is of a depth to allow the deepest draft steamships to approach with ease. This pier is in want of repair, but could be fixed at a comparatively small outlay."*

—Charleston News & Courier,  
December 28, 1887

Nearly 130 years later, another large, but empty, warehouse dominates

the Port Royal wharf and the commercial fishing docks again could use some minor upgrades. In some ways, however, this working waterfront has the most promising future of any in South Carolina. Battery Creek still has a naturally deep channel that is the envy of other working waterfronts. There's a small public beach and a public boat ramp at the mouth of the creek. The commercial fishing docks farther down the waterway are owned by the town, and town leaders appreciate the value of maintaining that industry. The large empty warehouse and wharf section between those areas is a State Ports Authority (SPA) facility that closed in 2004.

While an underutilized SPA facility and a waterfront fire have been a hindrance on the Georgetown waterfront, similar occurrences at Port Royal have prompted optimism. The state is auctioning the 52-acre SPA property, though the deal has been delayed several times. A planning document sets parameters for the property's

future retail and residential use. The planned waterfront portion of the project features a private marina with up to 225 slips for recreational boats, including 10 designated for public use.

A July 2015 fire burned the town seafood processing facility, which only recently had begun breaking even financially, and damaged the restaurant next door, but that setback had a silver lining. The building was insured for \$1.8 million. The insurance payout should allow for construction of a more modern processing plant with some left over to spruce up the dock, says Van Willis, town manager.

"We want to hold onto this because it's culturally iconic," Willis says. "We are very committed. No organization in South Carolina has spent more money helping the seafood industry than we have. We aren't looking to make money. We just want a facility that's being used."

Even with a makeshift processing plant in an adjacent warehouse, the dock was busy as commercial shrimp season began in May. Adam Singleton of Saint Helena Island spent a sunny morning on the deck of his boat, heading several-hundred pounds of shrimp pulled-in the day before. "They're doing it good for me," Singleton says of the Port Royal dock operators. "I love working with the people here, and we ain't got much place anywhere else around here to



**SEAFOOD MOUNDS.** *In the early- and middle-1900s, oystering was a major industry out of Port Royal, as boats pulled in barges laden with the tasty molluscs.*

PHOTO/BEAUFORT DISTRICT COLLECTION,  
BEAUFORT COUNTY LIBRARY



pack out like this. I hope it'll be here as long as I'll be shrimping."

Packing out refers to unloading shrimp straight to a dockside processor, who then handles the sale of the shrimp to seafood companies or retail outlets. It takes the business of selling the catch out of the hands of the shrimpers. Former shrimper Joey Morris runs the processing operation for the town of Port Royal, which also maintains fuel and ice facilities.

Until the new processing building can be built, a forklift is being used to move ice in large trash cans to the boats. That and the low market price for the shrimp this year were the only complaints from Singleton and fellow shrimper Jimmy Rowe. But Rowe says the challenge of getting ice is offset by the ease of navigating Port Royal's deep channel.

Chris Marsh, executive director of the LowCountry Institute, lives in Port Royal, close enough to the working waterfront to walk over to collect invertebrates for classes he teaches. He thinks the grant the town landed to pay for a boardwalk and observation deck at the public boat landing might have been as important as the work to keep the commercial dock alive. "That boardwalk made people see Port Royal differently, and it connects the entire community to the water," Marsh says. "It makes the community come down and visually participate in the waterfront. When you get to watch a waterfront work, you buy into it and want to keep it that way." 🐟

## Looking ahead: change is the one constant, and planning for it is key

The observations on South Carolina's working waterfronts from a century ago don't sound anything like what those communities have become. And today's versions, likewise, are primed to change remarkably in the next decade or two. Unlike a century ago, however, stakeholders now are trying to guide the evolution.

Murrells Inlet 2007 was renamed Murrells Inlet 2020, and the group is looking into the use of nearby property as a solution to the parking dilemma. Georgetown's leaders have asked the Washington, D.C.-based Urban Land Institute to help determine the ideal future use of the ArcelorMittal property. Port Royal has set limits on the building heights and population density for development on the former State Ports Authority property.

All of the communities also might be able to learn from others that have preceded them down similar paths. They can go online to the National Working Waterfront Network, a clearinghouse for resources as well as policy and economic best practices. Mount Pleasant's Shem Creek commercial fishing operators worried about the future of their leased dock space can



learn from Leland, Michigan, where residents formed the nonprofit Fishtown Preservation Society to raise \$3 million to buy waterfront property and maintain its historical use.

The story of a co-op formed to assure small fishing boat access in urban San Francisco, California might offer some tips for a succession plan for rural McClellanville when Rutledge Leland, III decides to call it quits at Carolina Seafood. Of course, Leland has acquired enough wisdom from his decades in the business to teach his own lessons. And in his mind, the future of working waterfronts, regardless of the location, depends on finding the right balance.

"The opportunity to earn income has to be there, and it has to not conflict with residential use of the water and recreational use of the water to create forces that would work against them," Leland says. "They have to be in harmony." 🐟



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# NEWS & NOTES

## New resiliency grant addresses future flooding in Charleston region

A grant awarded to the S.C. Sea Grant Consortium on behalf of the Charleston Resilience Network (CRN) seeks to help communities plan for and adapt to the area's increasing flood challenges.

The \$510,319 Regional Coastal Resilience Grant from the National Oceanic and Atmospheric Administration (NOAA) to the Consortium "will support the development of more robust and localized flooding models that can be used to plan infrastructure improvements in the Charleston, S.C. region," according to Rick DeVoe, executive director of the Consortium and program manager of the award.

Researchers from College of Charleston, University of South Carolina, and The Citadel will collaborate with the CRN and the Consortium on the three-year project. The non-federal match of \$255,568 brings the total grant award to \$765,887.

The mapping will examine the ability of fast-growing, low-lying neighborhoods to absorb flood impacts and build resiliency to flooding. The flood maps will focus down to the parcel level, factoring in new data on storm drains and sewer lines, the impacts of severe high tides and heavy bursts of rain, and on how the topography influences the movement of water, according to Norman Levine, Ph.D., who will lead the mapping effort.

NOAA's Regional Coastal Resilience Grants emphasize regional-scale projects that enhance the resilience of coastal communities and

economies. By leveraging the capabilities of CRN members and partners, this project will advance the collaborative approach necessary to understand vulnerabilities, educate stakeholders, and foster a unified strategy.

The resiliency grant's lead investigators are Levine and Elizabeth Fly, Ph.D., coastal climate extension specialist with the Consortium.

The second component of the project will focus on engaging neighborhoods in discussions about the mapping information and its implications for planning and adapting to future flooding events.

The keys to this effort will be a series of CRN participatory workshops with stakeholders, to be led by Fly, and the expansion of the South Carolina Coastal Information Network web portal, created by the Consortium and local, state, and federal partners to provide a one-stop location to find coastal-related information of interest to local communities. The website is currently being updated to enhance simple navigation through the extensive library of flooding and resiliency information, tools, and resources, which will be available at [www.sccoastalinfo.org](http://www.sccoastalinfo.org). To learn more about the CRN, visit [www.charlestonresilience.org](http://www.charlestonresilience.org). 🐞

## Horseshoe crab study finds genetically healthy population

Research on the genetic makeup of horseshoe crabs along the South Carolina coast indicates the population is large, diverse, and healthy.

The study, conducted by the S.C. Department of Natural Resources (SCDNR) with a grant from S.C. Sea



Horseshoe crab, *Limulus polyphemus*

Grant Consortium and support from Charles River Laboratories, involved gathering genetic material from horseshoe crabs at 12 sites from Turtle Island south of Hilton Head to Marsh Island north of Charleston.

Researchers clipped tissue samples from the leg tips of more than 2,000 horseshoe crabs. In the lab, they came up with genotypes of 739 of those samples from seven of the beaches.

They found almost no inbreeding, no isolation of any one pattern of genes at any one location, and enough genetic diversity to indicate a large variety of parents producing offspring.

"We had green check marks all the way down the list," said Tanya Darden, leader of the genetic research team at SCDNR's Marine Resources Research Institute. "We found no conservation concerns based on genetic diversity."

Potential overharvest of horseshoe crabs has been a concern along portions of the Atlantic coast, especially in the Northeast where they can be caught for use as bait in the fishing industry. South Carolina, however, allows the capture of horseshoe crabs only for biomedical use.

A clotting agent in the horseshoe crab's blood is widely used to determine whether vaccines, intravenous fluids, and artificial joints have been exposed to certain pathogens harmful to people.



# NEWS & NOTES

Crabs caught by trawlers or by hand from spawning beaches are taken to biomedical labs, where up to 25 percent of their blood is removed before they are released back into their natural habitat. Most of the crabs, from 80-90 percent, survive the process. ♡

## Five students chosen for prestigious fellowships

Five graduate and post-graduate students have been selected for national and state fellowships in 2016 through applications submitted by the S.C. Sea Grant Consortium.

Sean Bath and Rebecca Derex were selected for the National Oceanic and Atmospheric Administration (NOAA) National Sea Grant College Program's Dean John A. Knauss Marine Policy Fellowship; Sumi Selvaraj and Alex Braud for the NOAA Coastal Management Fellowship; and Emily Asp for the Kathryn D. Sullivan Earth and Marine Science Fellowship supported by the S.C. Space Grant Consortium and the S.C. Sea Grant Consortium.

Bath is a Ph.D. student in the University of South Carolina School of Geography with dual Master's degrees from the College of Charleston in environmental studies and public administration. He says he developed his interest in climate science and coastal uses as a graduate student intern with the Consortium. During his one-year Knauss fellowship, Bath is serving as



**Sean Bath**

an interagency policy liaison in the Office of the Oceanographer of the U.S. Navy. He has represented the Navy at meetings of national and international committees, and he supports the task force adapting naval operations and infrastructure to changing environmental conditions.



**Rebecca Derex**

University of South Carolina when she was selected as a Knauss fellow. She says she first grew interested in the intersection of coastal policy and marine science while working on a Marine Mammal Stranding Network project as an undergraduate at the College of Charleston. During her fellowship, she is serving in the policy office at the NOAA National Ocean Service headquarters. Her portfolio includes arctic policy and national ocean policy, and she assists with Congressional outreach and communication.

Selvaraj has a M.S. in Geography from the University of South Carolina and served as a graduate research assistant with Carolinas Integrated Sciences and Assessments (CISA). For her two-year Coastal Management fellowship, she was matched with the California Coastal Commission. Selvaraj will help analyze and prioritize the commission's climate preparedness and adaptation



**Sumi Selvaraj**

planning efforts using maps and other tools. She says she grew interested in coastal issues while serving in AmeriCorps in Cape Cod, Mass., and she began to focus on sea-level rise issues while working at CISA.



**Alex Braud**

beginning his Coastal Management fellowship. He also will be based in California for his fellowship, tasked with guiding the San Francisco Bay Conservation and Development Commission's regional sediment management program beyond its pilot stage. Braud was a graduate student intern for the Consortium, and he says that helped him learn how to apply lessons from his academic work to community projects.

Asp recently completed her first year in the Coastal Marine and Wetland Studies Master's program at Coastal Carolina University. She



**Emily Asp**

also has volunteered for the Waties Island Sea Turtle Patrol, which fits well with her future Sullivan fellowship work studying the effect of artificial light pollution on the orientation of loggerhead sea turtle hatchlings. She said one of the highlights of her graduate work at Coastal Carolina was a trip to Costa Rica, where she got hands-on experience working with leatherback turtles as a teaching assistant in a biology class. ♡



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# EBBS & FLOWS

## Oceans 2016

Monterey, California  
September 19-22, 2016

This international conference is a major forum for scientists, engineers, and those with an interest in the oceans. One of the plenary speakers is Marcia McNutt, editor-in-chief of the *Science* family of journals and nominee for the presidency of the National Academy of Sciences. In addition to the educational sessions, attendees can tour the more than 20 marine-related facilities in the Monterey Bay Crescent Research Consortium. For more information, visit [oceans2016.com](http://oceans2016.com).

## S.C. Water Resources Conference

Columbia, South Carolina  
October 12-13, 2016

This two-day forum examines water policies, management, and research with the goal of ensuring South Carolina has sufficient water resources to boost the economy and protect natural resources. Political and industry leaders, regulatory agencies, and nonprofit organizations will make presentations, and case studies will be featured on the impact of the October 2015 floods on water resources and ecosystems. For more information, visit [www.clemson.edu/public/sc\\_water\\_resources/index.html](http://www.clemson.edu/public/sc_water_resources/index.html).

## 18<sup>th</sup> International Conference on Shellfish Restoration

Charleston, South Carolina  
November 16-19, 2016

Shellfish restoration experts, resource managers, farmers, community groups, NGOs, and others come together for a forum that fosters the partnerships, initiatives, and exchange of information necessary to further the science and practice of shellfish restoration. ICSR will feature invited speakers, panel sessions, contributed oral and poster presentations, and interactive workshops. Visit [www.scseagrant.org/Content/icsr](http://www.scseagrant.org/Content/icsr) for more information.

**Subscriptions are free upon request by contacting: [Annette.Dunmeyer@scseagrant.org](mailto:Annette.Dunmeyer@scseagrant.org)**

**ATTENTION SCHOOL TEACHERS!** The S.C. Sea Grant Consortium has designed supplemental classroom resources for this and past issues of *Coastal Heritage* magazine. *Coastal Heritage Curriculum Connection*, written for K-12 educators and their students, is aligned with the South Carolina state standards for the appropriate grade levels. Includes standards-based inquiry questions to lead students through explorations of the topic discussed. *Curriculum Connection* is available online at [www.scseagrant.org/education](http://www.scseagrant.org/education).